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TWO PESTS OF BEANS FROM TROPICAL AMERICA(LEPIDOPTERA: OLETHREUTIDAE)¹

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ABSTRACT—*Laspeyresia torostoma*, n. sp., which feeds on string bean stems, is described and illustrated from Costa Rica and compared with *L. fabivora* Meyrick.

The two species referred to below are apparently important pests of beans of several kinds. One has been mentioned in the literature since 1928, under three names; the other, although known for several years, needs a name and is described below.

The drawings of the genitalia were made by Mr. George Venable, and the photographs of the adults were made by Mr. Victor Krantz, both on the staff of the Smithsonian Institution.

***Laspeyresia torostoma*, n. sp.**
(Figs. 1, 2)

Alar expanse 13-19 mm.

Labial palpus deep olive buff; second segment lightly mottled with gray blotches. Antenna blackish fuscous. Head mixed olive buff and gray; laterally

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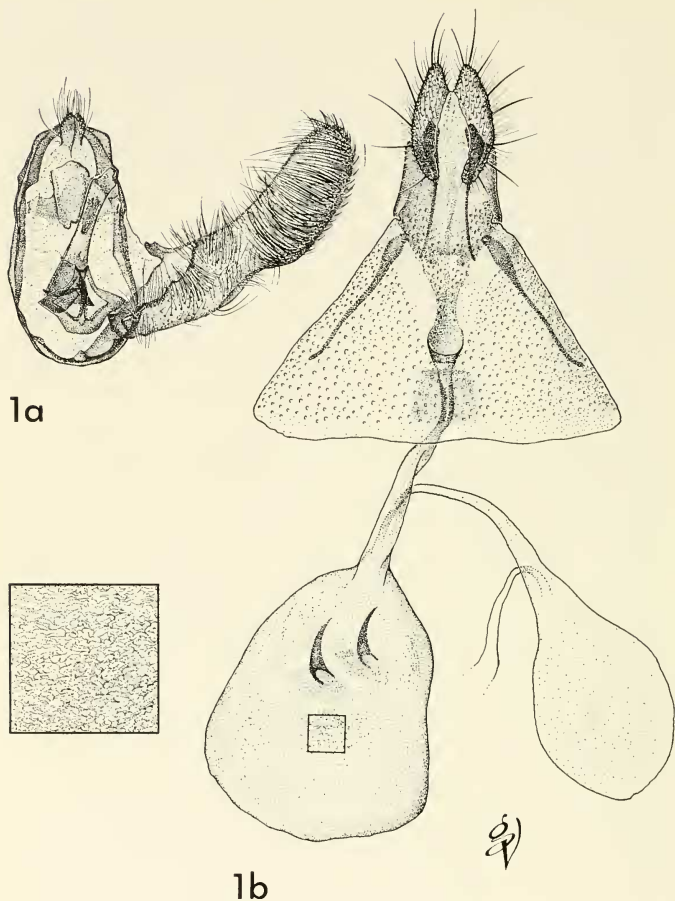


Fig. 1. *Laspeyresia torostoma*, n. sp.: a, ventral view of male genitalia with aedeagus *in situ* and left harpe omitted; b, ventral view of female genitalia with detail of bursa copulatrix to left.

light cinnamon buff. Thorax fuscous mixed olive buff posteriorly; tegula with scattered buff scales. Forewing ground color fuscous; costa marked with a series of eight metallic gray, oblique bars, their extreme costal edges mixed with pale buff scales; subapically an outwardly curved row of four metallic spots; two similar spots apically; basal half of wing with several transverse metallic bars; pretornally, on dorsal edge, a blackish-fuscous spot; ocelloid patch deep olive buff shading to buff terminally; ocelloid patch crossed by two metallic bars; cilia fuscous at apex, gray along termen and buff around tornal edge. Hindwing buff basally shading to fuscous outwardly; cilia grayish apically, shading to buff at anal angle, with grayish fuscous subterminal line. Foreleg deep olive buff shaded with fuscous on outer side; midleg similar; hindleg buff shaded with deep olive buff; tarsal segments annulated grayish fuscous. Abdomen fuscous dorsally, buff ventrally.

Male genitalia slides DRD 1899; USNM 24092, 24093. Harpe slightly longer than tegumen and vinculum combined; cucullus oval clothed with strong setae on inner surface, particularly toward ventral margin; neck incurvation shallow. Gnathos a sclerotized band broadened ventromedially. Socii closely appressed papillae. Vinculum rounded. Tegumen arched, about three quarters the length of harpe. Anellus diamond-shaped with dorsal arm articulating with aedeagus. Aedeagus straight, long, narrowed distally; vesica armed with a cluster of slender cornuti.

Female genitalia slides DRD 1900, 1906; USNM 24094. Ostium small, round; ventral lip strongly sclerotized; lamella antevaginalis a large sclerotized blotch; lamella postvaginalis elongate, Y-shaped, lightly sclerotized. Antrum elongate, slender, strongly sclerotized. Inception of ductus seminalis ventrally from anterior end of ductus bursae. Ductus bursae with a sclerotized patch about middle. Bursa copulatrix very finely spiculate. Signa slender, sharp, thornlike, with broad sclerotized bases.

Holotype: USNM No. 71100.

Type locality: Costa Rica, Turrialba (8.III.65, L. Bonnefil)

Distribution: Costa Rica.

Food plant: String beans (stems).

Described from the holotype female, 5♂♂ and 4♀♀ paratypes, same data as holotype; 1♂, 1♀ paratypes, Costa Rica, La Garita, Alahuela, 30.X.56, Alvaro Cordero (57-983).

Because both of the species included in this paper feed in beans, they might easily be confused in the field so the adults are figured for comparison. Of the two *fabivora* averages a little larger than *torostoma*, some specimens attaining as much as 24 mm. Moreover, *fabivora* has a paler ground color to the forewing and a light colored gray, yellowish or orange apical spot, lacking in *torostoma*. In addition, the base of the hindwing of *torostoma* is light colored, that of *fabivora* wholly dark. In male genitalia the incurvation of harpe is shallow and the aedeagus is straight in *torostoma* but in *fabivora* the incurvation is deep and the aedeagus is bent. The female genitalia of *torostoma* have a well sclerotized antrum and a sclerotized Y-shaped lamella postvaginalis; in *fabivora* the antrum is not sclerotized and



2



3

Fig. 2. *Laspeyresia torostoma*, n. sp., holotype female, Costa Rica, Turrialba, L. Bonnefil. Fig. 3. *L. fabivora* Mayrick, paratype female, Peru, Cañete, E. J. Hambleton.

the lamella postvaginalis consists of two elongate, sclerotized divergent areas.

***Laspeyresia fabivora* Meyrick**
(Fig. 3)

Laspeyresia fabivora Meyrick, 1928. Exotic Microlepidoptera 3:449.

Eulia prosecta Meyrick, 1932. Exotic Microlepidoptera 4:259. NEW SYNONYM.

Laspeyresia leguminis Heinrich, 1943. Proc. Ent. Soc. Wash. 45(3):71, pl. 4, figs. 1-5.

Types: British Museum (Natural History) (*fabivora*); Naturhistorisches Museum, Vienna (*prosecta*); U. S. National Museum of Natural History (*leguminis*).

Type localities: Colombia, Honda (*fabivora*); Costa Rica, Orosi, 5000 feet (*prosecta*); Peru, "Foa" (*leguminis*).

Distribution: With the addition of *prosecta* to the synonymy the distribution of this pest is now Costa Rica, Colombia, El Salvador, Mexico, Panama, and Peru.

Food plants: Lima beans, string beans, soybeans.

In 1958 (Proc. Ent. Soc. Wash. 60(4):187) I reported the identity of *leguminis* with *fabivora*. Since then I have had the opportunity to examine the type of *prosecta*, through the courtesy of Dr. F. Kasy, Naturhistorisches Museum, Vienna, and there is no doubt about the present synonymy. Obviously widespread in tropical America, this species will probably be found wherever beans are grown commercially.

**PHYTOLIRIOMYZA MONTANA FRICK, NEW SYNONYM OF
P. ARCTICA (LUNDBECK)**

(DIPTERA: AGROMYZIDAE)

Phytoliriomyza artica (Lundbeck), 1901, Naturhist. For. Kjøbenhavn, Vidensk. Meddel. 1900 (= ser. 6, 2): 304 (*Agromyza*); Spender, 1969, Mem. Ent. Soc. Canada 64:202. *P. montana* Frick, 1953, Proc. Hawaiian Ent. Soc. 15:213. NEW SYNONYM.

The male postabdomens of several specimens of *P. montana* from Hawaii, including a paratype from Hawaii National Park, 3 March 1946, were compared with that of a specimen from Elk Point, South Dakota, and the figures given by Spencer. Although the Hawaiian specimens are smaller, the postabdomens agree very well, and the names must be considered synonymous.

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